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REGION CONSERVATION AUTHORITY

HAMILTON-WENTWORTH REGION

ENVIRONMENTALLY SENSITIVE AREAS

FIELD STUDIES REPORT ON AREA NO. 25

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Field Studies and Written Report.

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ABSTRACT

This report is the result of field studies conducted in Environmentally Sensitive Area 25 of the Hamilton-Wentworth Region which is located within the jurisdiction of the Hamilton Region Conservation Authority. Primarily, it consists of inventories of biological communities, flora, breeding birds, mammals, reptiles and amphibians contained within the Sensitive Area and their importance in relation to the Hamilton-Wentworth Region. Fourteen areas were further studied by Authority staff where the original consultant's report lacked field data. The study on Environmentally Sensitive Areas by Ecologistics Ltd., 1976, should be used hand in hand with this report.



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INTRODUCTION

A total of 21 plots were mapped and subsequently surveyed for composition of plants, birds, reptiles and amphibians in the Redhill Creek Valley. They were chosen at random from aerial photographs and have some form of boundary - creek, road or field, etc. They are also areas having even growth of vegetation throughout the plot so they could easily be classified (see individual plot sheets). In other words, one plot would not contain forest with shrubs and open areas as a classification would then be difficult.

Contents of the survey are in order as follows:

1. Vegetation (a) Plot Sheets
(b) Complete list of plants known to occur in the Redhill Creek valley
2. Complete list of breeding birds and locations in the Redhill Creek valley.
3. Complete list of Mammals, Reptiles and Amphibians and locations in the Redhill Creek valley.
4. Maps showing locations of plots.

"A" plots are those found in the upper end of the valley known as King's Forest and adjacent areas. "B" plots are those found in the lower part of the valley of Redhill Creek and its tributaries.

From the field work, it was clear that the area has been highly abused by human activities; land filling, extensive trails (most were not needed), garbage dumping, past land clearing, and water pollution in the creek. Also, a large number of children from neighbouring residential areas use the valley as a playing area and the destruction of trees, etc., is great.

Dates of censusing were from June 1 to July 1, 1976. The majority of nesting of birds occurs in June which is also when most plants are flowering. Therefore, an accurate and complete census was obtained.

Size of plots ranged from approximately 4 acres (B-6) to approximately 19 acres (A-1). Plots were transected on foot as many times as required to adequately cover the area.

Recommendations:

A general recommendation for the valley would be to allow all existing forests to remain as they are and give other vegetation in various stages of growth a chance to become forested. In time, the result would be a continuous band of mature forest through the east end of Hamilton. Any development if really needed should be restricted to non-vegetated fields already adjacent to existing roads.

NAME: Redhill Creek Valley
CONSERVATION AUTHORITY: Hamilton Region

VEGETATION

Plot sites were first divided into the following, determined by the Redhill Creek Flood Plain Mapping (Dillon, March/75)

Upland: The soils of these sites are well drained and remain saturated for less than 6 months of the year. The topography may vary from flat to irregular sloping.

Floodplain: These sites are located in lowlands adjacent to watercourses. Their soils exhibit variable drainage characteristics but they are usually quite fertile. The land is normally inundated and the soil enriched on a varying number of occasions each year.

The vegetation was divided into 3 recognizable layers (if present):

Trees: Any growth above the height of 10-15 feet (eg, Maples, Oaks)

Shrubs: Plants with woody stems less than 10-15 feet (eg, Red Osier Dogwood)

Herbs: ground plants without woody stems (eg. all wildflowers, ferns, etc.).

The above 3 layers were further described as to:

Growth Density:

Scattered: Less than 33% crown coverage

Open: 33 to 66% crown coverage

Closed: over 66% crown coverage

(Crown coverage refers to the widest horizontal width of individual plants that occupies the vegetation layer.)

A Growth Maturity description was given to trees in plots classed as forest:

Young: where the majority of trees are small and best described as saplings.

Immature: where the majority of trees are quite large but are still growing.

Mature: where the majority of trees have reached their peak and growth is slowing.

Species Makeup in the Tree Layer is given in percentages. Percentages are actually the amount of crown coverage exhibited by the species, not necessarily by the numbers of individual trees present. Eg, a single full size Red Oak has more crown coverage (and significance) than 10 Sugar Maple saplings so therefore would have a higher percentage. In the Shrub Layer and Herb Layer the Species Makeup is given as:

Conspicuous: several or a great many individual plants found throughout or in one part of the plot.

Inconspicuous: a single plant or a very few individual plants found throughout or in one part of the plot.

In the transect sheets underlined species are those considered rare or unusual in the Hamilton-Wentworth Region by the following:

1. Ecologistics Ltd., 1976 - Hamilton-Wentworth Region Environmentally Sensitive Areas Study
2. Area Naturalists familiar with the Redhill Creek Valley.
3. Argus and White, 1975 - A Preliminary List of Rare Plants in Ontario (Ottawa)

Hamilton-Wentworth Region
 Environmentally Sensitive Areas Study
 - Field Studies

AREA NO. 25

Vegetation Plot A-1 Classification: Upland, Closed Forest (Immature)

<u>Trees (Closed)</u>		<u>Shrub Layer (Closed)</u>	<u>Herb Layer (Open)</u>
Sugar Maple	45%	<u>Conspicuous</u>	<u>Conspicuous</u>
Beech	25%		
Hornbeam	15%	Choke Cherry	Herb-robert
American White Birch	10%	Sugar Maple	Woodland Jack-in-the-Pulpit
	95%	American Basswood	White Trillium
		Common Elderberry	Early Meadow-rue
Eastern Hemlock		Running Strawberry-Bush	May-apple
American Basswood			Virginia Waterleaf
Red Oak			
Black Ash		<u>Inconspicuous</u>	<u>Inconspicuous</u>
Hawthorns sp.			
American Elm	5%	White Ash	False Solomon's Seal
	100%	Flowering Raspberry	Common Strawberry
		American Elm	Cleavers
		Pasture Gooseberry	Wild Lily-of-the-Valley
			Canada Violet
			Winter cress
			Common Plantain
			Wild Geranium
			Horsetails sp.
			Ferns sp.

Censused on June 3/76

Vegetation Plot A-2 Classification: Upland, Closed Forest (Mature)

<u>Trees (Closed)</u>		<u>Shrub Layer (Open)</u>	<u>Herb Layer (Open)</u>
Hawthorns sp.	80%	<u>Conspicuous</u>	<u>Conspicuous</u>
American Elm			
Staghorn Sumac		Red Raspberry	Grasses sp.
Black Cherry	10%	Flack Raspberry	Goldenrods sp.
Domestic Apple		Gray Dogwood	Wild Carrot
Domestic Pear	10%	Hawthorns sp.	Black Medick
	100%	American Elm	
		Wild Grape sp.	<u>Inconspicuous</u>
		Poison-ivy	
			Dame's Rockets
		<u>Inconspicuous</u>	Burdock sp.
			Herb-robert
		Staghorn Sumac	Common Strawberry
		White Ash	
		Tartarian Honeysuckle	
		Alternate-leaf	
		Dogwood	

Censused on June 4/75

Hamilton-Wentworth Region
Environmentally Sensitive Areas Study
- Field Studies

AREA NO. 25

Vegetation Plot A-3 Classification: Floodplain, Open Forest
(Immature)

<u>Trees (Open)</u>		<u>Shrub Layer (Open)</u>	<u>Herb Layer (Open)</u>
Sugar Maple	80%	<u>Conspicuous</u>	<u>Conspicuous</u>
White Ash			
Black Ash	10%	Choke Cherry	Common Blue Violet
White Pine		Sugar Maple	Canada Violet
Black Cherry		Alternate-leaf Dogwood	Virginia Waterleaf
American Basswood		Common Elderberry	Cleavers
American Elm		Red Elderberry	Herb-robert
Hawthorns sp.			Celandine
Staghorn Sumac		<u>Inconspicuous</u>	Jewelweed
Hornbeam	10%	Flowering Raspberry	Early Meadow-rue
	100%	Red Raspberry	White Baneberry
		Black Raspberry	<u>Inconspicuous</u>
		Black Locust	
		American Basswood	False Solomon's Seal
		Pasture Gooseberry	Burdock sp.
		Tartarian Honeysuckle	Woodland Jack-in-the-Pulpit
		Poison-ivy	Common Strawberry
		Virginia Creeper	Columbine
			Nightshade
			Wild Geranium
			Wild Ginger
			Sharp-lobed Hepatica
			Dame's rockets

Censused on June 4, 1976

Vegetation Plot A-4 Classification: Upland, Open Scrub

<u>Trees (absent)</u>		<u>Shrub Layer (Open)</u>	<u>Herb Layer (Closed)</u>
		<u>Conspicuous</u>	<u>Conspicuous</u>
		Staghorn Sumac	Common Blue Violet
		Blackberry sp.	Grasses sp.
		Red Raspberry	Red Clover
		Black Raspberry	White Clover
		<u>Inconspicuous</u>	King Devil
		Choke Cherry	Orange Hawkweed
		Hawthorns sp.	Burdock sp.
		Smooth Sumac	Goldenrods sp.
		White Ash	Teasel
		Bladdernut	Black Medick
		Common Lilac	<u>Inconspicuous</u>
			Common Buttercup
			Columbine
			Common Strawberry
			Herb-robert

Censused on June 3/76

Hamilton-Wentworth Region
 Environmentally Sensitive Areas Study
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AREA NO. 25

Vegetation Plot A-5 Classification: Upland, Closed, Plantation Forest (Mature)

<u>Trees (Closed)</u>		<u>Shrub Layer (Scattered)</u>	<u>Herb Layer (Open)</u>
Red Pine	70%	<u>Conspicuous</u>	<u>Conspicuous</u>
White Spruce	15%		
White Oak		Common Lilac	Nightshade
Red Oak	10%	Ashleaf Maple	Burdock sp.
White Pine		Red Oak	Goldenrods sp.
Black Cherry		Common Elderberry	Common Buttercup
Northern White Cedar		Choke Cherry	Wild Carrot
Sugar Maple		<u>Inconspicuous</u>	Herb-robert
Beech			Grasses sp.
Common Lilac		White Ash	<u>Inconspicuous</u>
Jack Pine	5%	Sugar Maple	Wintercress
	<u>100%</u>	Hawthorns sp.	Common Blue Violet
		Alternate-leaf Dogwood	Ferns sp.
			Purslane Speedwell

Censused on June 3/76

Vegetation Plot A-6 Classification: Upland, Closed Forest (Immature)

<u>Trees (Closed)</u>		<u>Shrub Layer (Scattered)</u>	<u>Herb Layer (Open)</u>
Sugar Maple	80%	<u>Conspicuous</u>	<u>Conspicuous</u>
Eastern Hemlock	5%		Burdock sp.
White Ash	5%	American Elm	Woodland Jack-in-the-Pulpit
Beech	5%	White Ash	White Trillium
	<u>95%</u>	Beech	False Solomon's Seal
American Basswood		Sugar Maple	Herb-robert
Black Ash		Running Strawberry-Bush	Bloodroot
Northern White Cedar		Flowering Raspberry	Ferns sp.
Horse Chestnut		<u>Inconspicuous</u>	Early Meadow-rue
Alternate-leaf Dogwood			King Devil
American White Birch		Alternate leaf Dogwood	Mosses sp.
Black Walnut		Hawthorns sp.	Blue phlox
Black Cherry		Choke Cherry	
White Pine	5%	Mountain Maple	<u>Inconspicuous</u>
Yellow Birch		Red Elderberry	Canada Anemone
	<u>100%</u>	Staghorn Sumac	Columbine
			Canada Violet
			Sharp-lobed Hepatica
			Common Blue Violet
			Foamflower
			Wintercress
			Wild Geranium
			Celandine
			Narrow-leaved Cattail
			Cleavers

Censused on June 1, 1976

Hamilton-Wentworth Region
 Environmentally Sensitive Areas Study
 - Field Studies

AREA NO. 25

Vegetation Plot A-7 Classification: Upland, Closed, Plantation Forest (Mature)

<u>Trees (Closed)</u>		<u>Shrub Layer (Closed)</u>	<u>Herb Layer (Open)</u>
Red Pine	70%	<u>Conspicuous</u>	<u>Conspicuous</u>
White Spruce	15%		
White Pine	10%	Choke Cherry	Burdock sp.
White Ash		Slippery Elm	Grasses sp.
Norway Spruce		Common Elderberry	White Baneberry
Hawthorns sp.		Poison-ivy	Jewelweed
Black Cherry		Flowering Raspberry	White Clover
Staghorn Sumac			Common Strawberry
Quaking Aspen		<u>Inconspicuous</u>	Early Meadow-rue
Jack Pine	5%		
	<u>100%</u>	Black Ash	<u>Inconspicuous</u>
		Sugar Maple	
		Red Oak	Herb-robert
		Bur Oak	Horsetails
		Hawthorns sp.	Common Blue Violet
		American Basswood	Ferns sp.
		Tartarian Honeysuckle	False Solomon's Seal
		Red Elderberry	Winter Cress
		Round-leaf Dogwood	Woodland Jack-in-the-Pulpit
		Red Raspberry	Dame's rockets
		Golden Currant	Common Plantain

Censused June 1/76

Vegetation Plot A-8 Classification: Upland, Closed Scrub

<u>Trees (Scattered)</u>	<u>Shrub Layer (Closed)</u>	<u>Herb Layer (Open)</u>
Domestic Apple	Gray Dogwood	<u>Conspicuous</u>
Sweet Cherry	Hawthorns sp.	
White Ash	Willows	Watercress
Black Willow	Staghorn Sumac	Narrow-leaved cattail
Hawthorns sp.	White Ash	Goldenrods sp.
	Red Raspberry	Burdock sp.
	Wild Grape	Grasses sp.
	Poison-ivy	Jewelweed
		<u>Inconspicuous</u>
		Nightshade
		Common Strawberry
		King Devil
		Wintercress

Censused on June 4/76

Hamilton-Wentworth Region
 Environmentally Sensitive Areas Study
 - Field Studies

AREA NO. 25

Vegetation Plot A-9 Classification: Upland, Closed Forest
 (Immature)

<u>Trees (Closed)</u>		<u>Shrub Layer (Scattered)</u>	<u>Herb Layer (Open)</u>
Sugar Maple	65%	<u>Conspicuous</u>	<u>Conspicuous</u>
American Basswood	10%	American Basswood	Wild Ginger
White Ash	10%	White Ash	Winter Cress
Eastern Hemlock	5%	Flowering Raspberry	Burdock sp.
Red Oak	90%	Alternate-leaf Dogwood	False Solomon's Seal
American Elm		Ash-leaf Maple	May apple
Big-toothed Aspen			Woodland Jack-in-the-Pulpit
Beech			Ferns sp.
Silver Maple		<u>Inconspicuous</u>	Mosses sp.
Alternate-leaf		Willows sp.	King Devil
Dogwood		Beech	Blue Phlox
Ashleaf Maple	10%	Quaking Aspen	
	100%	Hawthorns sp.	
		Red Elderberry	<u>Inconspicuous</u>
		Staghorn Sumac	Narrow-leaved Cattail
		Choke Cherry	Wild Geranium
		Tartarian Honeysuckle	Herb-robert
		Virginia Creeper	Canada Violet
		Red Raspberry	Columbine
		Poison-ivy	Nightshade
			Dame's rocket
			Cleavers

Censused on June 1/76

Vegetation Plot A-10 Classification: Upland, Open Forest
 (Immature)

<u>Trees (Open)</u>		<u>Shrubs (Closed)</u>	<u>Herb Layer (Open)</u>
Sugar Maple	40%	<u>Conspicuous</u>	<u>Conspicuous</u>
American Basswood	10%	Alternate-leaf Dogwood	Nightshade
Black Cherry	10%	Red Raspberry	Herb-robert
White Ash	10%	White Ash	False Solomon's Seal
American Elm	10%	Common Elderberry	Wild Geranium
	80%	American Basswood	Goldenrods sp.
Alternate-leaf		Choke Cherry	Burdock sp.
Dogwood		Poison-ivy	
Staghorn Sumac		Virginia Creeper	
Hawthorns	20%	<u>Inconspicuous</u>	<u>Inconspicuous</u>
	100%	Red Elderberry	Dame's rockets
		Flowering Raspberry	Early Meadow-rue
		Wild Grape sp.	Forget-me-not
		Gray Dogwood	Common Fleabane
			Common Strawberry
			Common Plantain
			Canada Violet
			Virginia Waterleaf
			May apple

Censused on June 3/76

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AREA NO. 25

Vegetation Plot A-11 Classification: Upland, Closed, Forest
 (Mature)

<u>Trees (Closed)</u>		<u>Shrub Layer (Scattered)</u>	<u>Herb Layer (Open)</u>
Sugar Maple	85%	Flowering Dogwood	<u>Conspicuous</u>
American Elm (mostly dead)	10%	Sugar Maple	
	95%	White Ash	Herb-robert
Black Cherry		Running Strawberry Bush	Great Burdock
White Pine			Early Meadow-rue
American White Birch			Wild Ginger
Black Ash	5%		May apple
	100%		Woodland Jack-in-the-Pulpit
			Foamflower
			<u>Inconspicuous</u>
			Nightshade
			Wintercress
			Common Strawberry
			Evening Lychnis
			Dame's rocket
			Sharp-lobed Hepatica
			Purple flowering
			Raspberry

Censused on June 3/76

Vegetation Plot B-1 Classification: Floodplain, Open Forest
 (Immature)

<u>Trees (Open)</u>		<u>Shrub Layer (Open)</u>	<u>Herb Layer (Closed)</u>
Black Walnut	30%	<u>Conspicuous</u>	<u>Conspicuous</u>
Ashleaf Maple	30%		
American Elm	10%	Wild Grape sp.	Water Plantain
Hawthorns sp.	10%	Ashleaf Maple	Ox-eye Daisy
Sugar Maple	10%	Hawthorns sp.	Early Meadow-rue
	90%	Staghorn Sumac	White Avens
American Basswood		Virginia Creeper	Enchanter's Nightshade
Willows sp.		Common Elderberry	Nightshade
American White Birch			
Hornbeam	10%		<u>Inconspicuous</u>
	100%		
		Black Raspberry	Yellow Sweet C.
		Ped Raspberry	Black Med.
		Choke Cherry	Cow Vetch
		Red Osier Dogwood	Red Clover
		Tartarian Honeysuckle	Wild Carrot
		Common Cottonwood	Viper's Bugloss
		American Crabapple	Rough-fruited
		Willow sp.	Cinquefoil
		Gray Dogwood	Goldenrods sp.
		White Mulberry	Common Fleabane
			Common Milkweed
			Burdock sp.
			Wild Geranium
			Herb-robert
			Teasle
			Field Pennycress
			Common Hop
			Mustard sp.
			Canada Anemone
			Common St. Johnswort
			Curled Dock
			Common Buttercup
			Common Blue

Vegetation Plot B-2 Classification. Upland, Open Forest (Young)

<u>Trees (open)</u>	<u>Shrub Layer (Open)</u>	<u>Herb Layer (Open)</u>
<u>Conspicuous</u>	<u>Conspicuous</u>	<u>Conspicuous</u>
Black Cherry	Gray Dogwood	Wild Carrot
Sweet Cherry	Hawthorns sp.	Rough-fruited
White Pine	Northern Prickly Ash	Cinquefoil
Sugar Maple	Choke Cherry	White Avens
Hawthorns sp.	White Ash	Rough Avens
Hornbeam	Witch Hazel	Virginia Waterleaf
Beech	Round-leaf Dogwood	May-apple
Black Walnut	Virginia Creeper	Common Blue Violet
Red Oak	Wild Grape sp.	White Trillium
<u>Inconspicuous</u>	<u>Inconspicuous</u>	<u>Inconspicuous</u>
White Oak	American Basswood	Wild Geranium
Bur Oak	Sugar Maple	Common Fleabane
American Elm	Staghorn Sumac	White Clover
Shagbark Hickory	Pasture Gooseberry	Goldenrods sp.
	Running Strawberry-Bush	Grasses sp.
	Red Raspberry	Common St. John's Wart
	Tartarian Honeysuckle	Ox-eye Daisy
	European Gooseberry	Common Dandelion
	Poison-ivy	Common Milkweed
		Smaller Hop Clover
		Red Clover
		Yellow Sweet Clover
		Burdock sp.
		Common Strawberry
		False Solomon's Seal
		King Devil
		Common Plantain
		Viper's Bugloss
		Thistle sp.
		Teasel

Censused on June 24/76

Hamilton-Wentworth Region

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- Field Studies

AREA NO. 25

Vegetation Plot B-3 Classification: Upland, Closed Forest (Immature)

<u>Trees (Closed)</u>		<u>Shrub Layer (Scattered)</u>	<u>Herb Layer (open)</u>
Sugar Maple	90%	<u>Conspicuous</u>	<u>Conspicuous</u>
Red Oak		Red Oak	Wild Geranium
White Pine		Choke Cherry	White Avens
American Elm		Gray Dogwood	Rough Avens
Hornbeam		White Ash	Early Meadow-rue
Black Cherry		Shagbark Hickory	False Solomon's Seal
Beech	10%	Alternat. Leaf Dogwood	Common Blue Violet
	100%	Maple-leaf Viburnum	Wild Ginger
			May-apple
			White Trillium
			Virginia Waterleaf
		<u>Inconspicuous</u>	<u>Inconspicuous</u>
		American Elm	Wild Carrot
		Red Raspberry	Rough-fruited Cinquefoil
		Pasture Gooseberry	Goldenrods sp.
		European Gooseberry	Viper's Bugloss
		Hawthorns sp.	Common Fleabane
		Northern prickly ash	Herb-robert
		Running strawberry bush	Burdock sp.
		Wild Grape sp.	Grasses sp.
		American Basswood	Jewelweed
		Poison-ivy	Running Glory sp.
			Thistle sp.
			Yellow wood sorrel
			Wild Lettuce

Censused on June 17/76

Vegetation Plot B-4 Classification: Upland, Closed Forest (Immature)

<u>Trees (Closed)</u>		<u>Shrub Layer (Scattered)</u>	<u>Herb Layer (Open)</u>
White Ash		American Elm	Purloak
Basswood		Wild Grape sp.	Common Buttercup
Hawthorns sp.		Tartarian Honeysuckle	Wild Carrot
Black Cherry		Multiflora Rose	Common Plantain
Ashleaf Maple		Choke Cherry	Motherwort
Willows sp.		Staghorn Sumac	Rough Avens
White Spruce		Virginia Creeper	Common St. John's Wort
Sugar Maple		Black Raspberry	Dame's rockets
Sweet Cherry		Lilac	Nightshade
Domestic Apple		White Cedar	Ox-eye Daisy
Black Walnut		Red Oak	Common Fleabane
			Rough-fruited Cinquefoil
			Common Blue Violet
			False Solomon's Seal
			Red Clover
			Honeywort
			Goldenrod sp.
			Grasses sp.
			Dandelion sp.

Censused on June 17/76

Hamilton-Wentworth Region

Environmentally Sensitive Areas Study

Field Studies

AREA NO. 25

Vegetation Plot B-5 Classification: Floodplain, Closed Scrub

<u>Trees (Scattered)</u>	<u>Shrub Layer (Closed)</u>	<u>Herb Layer (Closed)</u>
Ashleaf Maple	<u>Conspicuous</u>	<u>Conspicuous</u>
Black Willow	Ashleaf Maple	Dame's rocket
Black Walnut	Wild Grape sp.	Jewelweed
American Elm	Black Raspberry	Goldenrods sp.
Sycamore	Hawthorn sp.	Burdock sp.
Common Cottonwood	Virginia Creeper	Canada Anemone
	<u>Inconspicuous</u>	Wild Carrot
	Pasture Gooseberry	<u>Inconspicuous</u>
	American Elm	Teasel
	Staghorn Sumac	Common Blue Violet
	Poison-ivy	Wild Geranium
		Grasses sp.
		White Avens
		Motherwort
		Common Buttercup
		Rough Avens
		Thistle sp.
		Dandelions sp.

Censused on June 18/76

Vegetation Plot B-6 Classification: Floodplain, Open Forest (Immature)

<u>Trees (Open)</u>	<u>Shrub Layer (open)</u>	<u>Herb Layer (Closed)</u>
Sugar Maple 50%	<u>Conspicuous</u>	<u>Conspicuous</u>
Willows sp. 10%	Ashleaf Maple	Goldenrods sp.
Ashleaf Maple 10%	Black Raspberry	Burdock sp.
Black Walnut 10%	Staghorn Sumac	Dame's rocket
	Choke Cherry	False Solomon's Seal
	Silver Maple	Jewelweed
	Wild Grape sp.	White Trillium
	Flowering Raspberry	Thistle sp.
	<u>Inconspicuous</u>	<u>Inconspicuous</u>
Basswood 20%	Running Strawberry-bush	Dandelions sp.
	Basswood	Grasses sp.
	Common Cottonwood	Wild Carrot
	Red Elderberry	Herb-robert
	Pasture Gooseberry	Early Meadow-rue
	Red Raspberry	White Aven
	Gray Dogwood	Nightshade
	Multiflora Rose	Common Plantain
	Virginia Creeper	Common Blue Violet
	Poison-ivy	Common Fleabane
		Woodland Jack-in-the-Pulpit
		Wintercress

Censuses on June 13/76

Hamilton-Wentworth Region
 Environmentally Sensitive Areas Study
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AREA NO. 25

Vegetation Plot B-7 Classification: Floodplain, Open, Forest
 (Immature)

<u>Trees (Open)</u>		<u>Shrub Layer (Closed)</u>	<u>Herb Layer (Closed)</u>
Willow sp.	25%	<u>Conspicuous</u>	<u>Conspicuous</u>
Ashleaf Maple	15%		
Common Cottonwood	15%	Choke Cherry	Common Plantain
Sugar Maple	15%	Wild Grape Sp.	Early Meadow-rue
Red Oak	10%	Hawthorns sp.	Burdock sp.
	80%	American Basswood	Dame's rocket
Bur Oak		American Elm	False Solomon's
Black Locust		Ashleaf Maple	Seal
American Basswood		Common Cottonwood	Jewelweed
Hawthorns sp.		Poison-ivy	Black Mustard
Black Cherry		Virginia Creeper	Grasses sp.
Shagbark Hickory			Nightshade
American Elm		<u>Inconspicuous</u>	Virginia Waterleaf
Sweet Cherry			Goldenrods sp.
Black Walnut	20%	Black Locust	Honewort
	100%	Gray Dogwood	Curled Dock
		Pasture Gooseberry	Cow Parsnip
		White Ash	Celandine
		Running Strawberry bush	
		Red Raspberry	<u>Inconspicuous</u>
		Staghorn Sumac	
			Red Clover
			White Clover
			Ox-eye Daisy
			Wild Carrot
			Spotted St. John's Wort
			Cow Vetch
			Rough-fruited
			Cinquefoil
			King Devil
			Common Blue Violet
			Wintercress
			Wild Geranium
			Dandelions sp.
			Smaller Hop Clover
			Common Buttercup
			Intermediate
			Dogbane
			Common Strawberry
			Common Morning Glory
			Ivy-leaved Morning Glory

Censused on June 18/76

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AREA NO. 25

Vegetation Plot B-8 Classification: Floodplain, Open, Forest (Immature)

<u>Trees (Open)</u>		<u>Shrub Layer (Open)</u>	<u>Herb Layer (Closed)</u>
Ashleaf Maple	70%	<u>Conspicuous</u>	<u>Conspicuous</u>
Willow sp.	20%		Dame's rockets
	<u>90%</u>	Ashleaf Maple	Burdock sp.
Hawthorns sp.		Wild Grape sp.	Grasses sp.
Common Cottonwood	10%	Virginia Creeper	Stinging Nettle
	<u>100%</u>		Cow Parsnip
		<u>Inconspicuous</u>	Nightshade
		American Elm	Black Mustard
		Pasture Gooseberry	Curled Dock
			Water Pennywort
			<u>Inconspicuous</u>
			Goldenrod sp.
			Jewelweed
			Common Plantain

Censused on June 24/76

Vegetation Plot B-9 Classification: Floodplain, Closed Forest(Immature)

<u>Trees (Closed)</u>		<u>Shrub Layer (Open)</u>	<u>Herb Layer (Open)</u>
Sugar Maple	50%	<u>Conspicuous</u>	<u>Conspicuous</u>
Ashleaf Maple	10%		
Hornbeam	10%	Wild Grape sp.	Goldenrods sp.
Beech	10%	Virginia Creeper	Teasel
	<u>80%</u>	Choke Cherry	Enchanter's Nightshade
American Basswood		White Ash	Rough Avens
White Pine		Beech	Burdock
Red Oak		Sugar Maple	Nightshade
Shagbark Hickory		Running Strawberry-bush	Virginia Waterleaf
Black Walnut			Woodland Jack-in-the-Pulpit
Tamarack		<u>Inconspicuous</u>	Wild Geranium
White Spruce			Schreber's Aster
Red Pine		American Elm	False Solomon's Seal
Black Cherry		American Basswood	May-apple
Sweet Cherry	20%	Gray Dogwood	Rough-fruited
	<u>100%</u>	Honey Locust	Cinquefoil
		Hawthorns sp.	Black Medick
		Black Raspberry	<u>Inconspicuous</u>
		Pasture Gooseberry	Ox-eye Daisy
		Witch Hazel	Common Strawberry
		Shagbark Hickory	Wild Carrot
		Red Raspberry	Dandelion sp.
			Yellow Sweet Clover
			Common St. John's Wort
			Common Buttercup
			Red Clover
			Creeping Bellflower
			Thistle sp.
			Dame's rockets
			Jewelweed
			Yellow Wood Sorrel
			Common Blue Violet
			Lady Fern
			White Avens
			Deptford Pink
			Intermediate Dogbane
			Agrimony sp.
			Herb-robert

Censused on July 1/76

Vegetation Plot B-10 Classification: Upland, Open, Forest (Immature)

<u>Trees (Open)</u>		<u>Shrub Layer (Open)</u>	<u>Herb Layer (Open)</u>
Sugar Maple	50%	<u>Conspicuous</u>	<u>Conspicuous</u>
Red Oak	10%		
Hornbeam	10%	White Ash	False Solomon's Seal
Shagbark Hickory	10%	Shagbark Hickory	Enchanter's Night-shade
	80%	Gray Dogwood	Herb-robert
Black Cherry		Red Maple	
White Oak			
Beech		<u>Inconspicuous</u>	<u>Inconspicuous</u>
White Ash			
Hawthorns sp.	20%	Beech	Early Meadow-rue
	100%	European Gooseberry	Grasses sp.
			White Avens
			May-apple

Censused on July 1/76

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AREA NO. 25

LIST OF PLANTS

* denotes species known to occur in Redhill Creek Valley, but not found on a plot.

A - Alien. Species not native to Canada (usually of European descent) or native species introduced into the valley (eg. Red Pine, Tamarack, in reforestation plantings).

Status: C Common

U Unusual plants listed by Ecologists in Regional Study and by others.

R Rare plants listed in Argus & White, 1975,
A Preliminary List of Rare Plants in Ontario (Ottawa)

Nomenclature, taxonomy, and listing order for Trees and Shrubs follows Petrides, 1972, A Field Guide to Trees and Shrubs.

Nomenclature and taxonomy for Flowering Plants follows Peterson & McKenny, A Field Guide to Wildflowers. Order for listing is as they appear in the Plot Sheets.

<u>TREES</u>		<u>Status</u>
White Pine	(<i>Pinus strobus</i>)	C
A Red Pine	(<i>Pinus resinosa</i>)	C
A Jack Pine	(<i>Pinus banksiana</i>)	C
A Tamarack	(<i>Larix laricina</i>)	U
Eastern Hemlock	(<i>Tsuga canadensis</i>)	C
A Norway Spruce	(<i>Picea abies</i>)	C
A White Spruce	(<i>Picea glauca</i>)	C
A Northern White Cedar	(<i>Thuja occidentalis</i>)	C
White Ash	(<i>Fraxinus americana</i>)	C
Black Ash	(<i>Fraxinus nigra</i>)	C
Ashleaf Maple	(<i>Acer negundo</i>)	C
A Horsechestnut	(<i>Aesculus hippocastanum</i>)	C
<u>Flowering Dogwood</u>	(<i>Cornus florida</i>)	R
Mountain Maple	(<i>Acer spicatum</i>)	C
Red Maple	(<i>Acer rubrum</i>)	C
Silver Maple	(<i>Acer saccharinum</i>)	C
Sugar Maple	(<i>Acer saccharum</i>)	C
Honey Locust	(<i>Gleditsia triacanthos</i>)	C
Black Locust	(<i>Robinia pseudo-acacia</i>)	C
Black Walnut	(<i>Juglans nigra</i>)	R
Shagbark Hickory	(<i>Carya ovata</i>)	C
Native Crabapple	(<i>Pyrus coronaria</i>)	U
Hawthorns sp.	(<i>Crataegus spp.</i>)	C
Sycamore	(<i>Platanus occidentalis</i>)	U
American Basswood	(<i>Tilia americana</i>)	C
A White Mulberry	(<i>Morus alba</i>)	C
Bigtooth Aspen	(<i>Populus grandidentata</i>)	C
Common Cottonwood	(<i>Populus deltoides</i>)	C
Quaking Aspen	(<i>Populus tremuloides</i>)	C
White Oak	(<i>Quercus alba</i>)	C
Bur Oak	(<i>Quercus macrocarpa</i>)	C
Red Oak	(<i>Quercus rubra</i>)	C

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TREES

		<u>Status</u>
American Elm	(<i>Ulmus americana</i>)	C
Slippery Elm	(<i>Ulmus rubra</i>)	C
Hornbeam	(<i>Ostrya virginiana</i>)	C
American White Birch	(<i>Betula papyrifera</i>)	C
Yellow Birch	(<i>Betula lutea</i>)	C
Black Cherry	(<i>Prunus serotina</i>)	C
A Sweet Cherry	(<i>Prunus avium</i>)	C
Black Willow	(<i>Salix nigra</i>)	C
Beech	(<i>Fagus grandifolia</i>)	C
A Domestic Apple	(<i>Pyrus malus</i>)	C
A Domestic Pear	(<i>Pyrus communis</i>)	C

SHRUBS

Bladdernut	(<i>Staphylea trifolia</i>)	U
Common Elderberry	(<i>Sambucus canadensis</i>)	C
Red Elderberry	(<i>Sambucus pubens</i>)	C
Running Strawberry bush	(<i>Euonymus obovatus</i>)	C
A Tartarian Honeysuckle	(<i>Lonicera tatarica</i>)	C
Roundleaf Dogwood	(<i>Cornus drummondii</i>)	C
Red-Osier Dogwood	(<i>Cornus stolonifera</i>)	C
Alternate-leaf Dogwood	(<i>Cornus alternifolia</i>)	C
A Gray Dogwood	(<i>Cornus racemosa</i>)	C
A Common lilac	(<i>Syringa vulgaris</i>)	C
Mapleleaf Viburnum	(<i>Viburnum acerifolium</i>)	C
Red Raspberry	(<i>Rubus idaeus</i>)	C
Black Raspberry	(<i>Rubus occidentalis</i>)	C
Blackberries sp.	(<i>Rubus spp.</i>)	C
A Multiflora Rose	(<i>Rosa multiflora</i>)	C
Northern prickly-ash	(<i>Xanthoxylum americanum</i>)	C
Poison-ivy	(<i>Rhus radicans</i>)	C
Staghorn Sumac	(<i>Rhus typhina</i>)	C
Smooth Sumac	(<i>Rhus glabra</i>)	U
Virginia Creeper	(<i>Parthenocissus quinquefolia</i>)	C
Willows	(<i>Salix spp.</i>)	C
Wild Grape	(<i>Vitis spp.</i>)	C
Bristly Black Currant	(<i>Ribes lacustre</i>)	C
Pasture Gooseberry	(<i>Ribes cynosbati</i>)	C
A European Gooseberry	(<i>Ribes grossularia</i>)	C
Goldern Currant	(<i>Ribes odoratum</i>)	C
Flowering Raspberry	(<i>Rubus odoratum</i>)	C
Choke Cherry	(<i>Prunus virginiana</i>)	C
Common Hazelnut	(<i>Corylus americana</i>)	C
* Northern Bush Honeysuckle	(<i>Diervilla lonicera</i>)	C
* Shortstalk Arrowwood	(<i>Viburnum rafinesquianum</i>)	C
* Canada Buffaloberry	(<i>Shepherdia canadensis</i>)	C
* Snowberry	(<i>Symporicarpus albus</i>)	C

PLANTS (non flowering)

* Club Moss	(<i>Lycopodium spp.</i>)	C
Mosses	(<i>Musci spp.</i>)	C
Horsetails	(<i>Equisetum spp.</i>)	C
Lady Fern	(<i>Athyrium Filix-femina</i>)	C
Sensitive Fern	(<i>Onoclea Sensibilis</i>)	C
* Ostrich Fern	(<i>Matteuccia Struthiopteris</i>)	C
* Marsh Fern	(<i>Thelypteris palustris</i>)	C
* Marginal Woodfern	(<i>Dryopteris marginalis</i>)	C
* Ground Cedar	(<i>Lycopodium complanatum</i>)	U

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<u>PLANTS (flowering)</u>	<u>Status</u>
Herb-robert	C
Woodland Jack-in-the-Pulpit	C
White Trillium	C
Early Meadow-rue	C
May-apple	C
Virginia Waterleaf	C
False Solomon's Seal	C
Common Strawberry	C
Cleavers	C
Wild Lily-of-the-valley	C
Canada Violet	C
A Winter Cress	C
A Common Plantain	C
Wild Geranium	C
Grasses	C
A Black Medick	C
Goldenrods	C
A Wild Carrot	C
A Dame's rockets	C
A Burdock	C
Common Blue Violet	C
A Celandine	C
Jewelweed	C
White Baneberry	C
A Nightshade	C
Wild Ginger	C
Sharp-lobed Hepatica	C
A Red Clover	C
A White Clover	C
A King Devil	C
A Orange Hawkweed	C
A Teasel	C
A Common Buttercup	C
Columbine	C
Purslane Speedwell	C
Bloodroot	C
Blue Phlox	C
Canada Anemone	U
Foamflower	C
Narrow-leaved Cattail	C
A Watercress	C
Forget-me-not	C
Common Fleabane	C
A Great Burdock	C
A Wood Strawberry	C
A Evening Lychnis	U
Water Plantain	C
A Ox-eye Daisy	C
White Avens	C
Enchanter's Nightshade	C
A Yellow Sweet Clover	C
Cow Vetch	C
A Viper's Bugloss	C
A Rough-fruited Cinquefoil	C
Common Milkweed	C
A Field Pennycress	C
A Common St. John's Wort	C
A Curled Dock	C
A Common Dandelion	C
A Smaller Hop Clover	C

A Morning Glory	(<i>Ipomoea spp.</i>)	C
A Yellow Wood Sorrel	(<i>Oxalis stricta</i>)	C
Wild Lettuce	(<i>Lactuca canadensis</i>)	C
A Motherwort	(<i>Leonurus cardiaca</i>)	C
A Moneywort	(<i>Lysimachia nummularia</i>)	C
A Thistles	(<i>Cirsium spp.</i>)	C
A Black Mustard	(<i>Brassica nigra</i>)	C
Honewort	(<i>Cryptotaenia canadensis</i>)	U
Cow Parsnip	(<i>Heracleum maximum</i>)	U
Spotted St. John's Wort	(<i>Hypericum punctatum</i>)	C
Intermediate Dogbane	(<i>Apocynum medium</i>)	C
A Common Morning Glory	(<i>Ipomoea purpurea</i>)	C
A Ivy-leaved Morning Glory	(<i>Ipomoea hederacea</i>)	C
A Stinging Nettle	(<i>Urtica dioica</i>)	C
Water Pennywort	(<i>Hydrocotyle americana</i>)	U
Schreber's Aster	(<i>Aster shreberi</i>)	U
A Creeping Bellflower	(<i>Campanula rapunculoides</i>)	C
A Deptford Pink	(<i>Dianthus armeria</i>)	C
Agrimony	(<i>Agrimonia spp.</i>)	C
* Daisy Fleabane	(<i>Erigeron strigosus</i>)	C
* Pokeweed	(<i>Phytolacca americana</i>)	U
*	- below Albion Falls A-6	
* Asters	(<i>Chrysopsis spp.</i>)	C
*A Lesser Stitchwort	(<i>Stellaria graminea</i>)	U
* Four-sided Vetch	(<i>Vicia tetrasperma</i>)	U
*A Spring Vetch	(<i>Vicia sativa</i>)	U
* Great Lobelia	(<i>Lobelia siphilitica</i>)	U
* Green Violet	(<i>Hybanthus concolor</i>)	R
below Albion & Buttermilk Falls A6, A9		
* Smooth Rock cress	(<i>Arabis canadensis</i>)	C
* Yellow Pimpernel	(<i>Taenidia integerrima</i>)	C
* Broad-leaved waterleaf	(<i>Hydrophyllum canadense</i>)	C
* Large-flowered Bellwort	(<i>Uvularia grandiflora</i>)	C
* Long-spurred Violet	(<i>Viola rostrata</i>)	U
* Wood Anemone	(<i>Anemone quinquefolia</i>)	C
* Miterwort	(<i>Mitella diphylla</i>)	C
* Small-flowered Leafcup	(<i>Polymnia canadensis</i>)	R
- below Mt. Albion A6		
* Shinleaf	(<i>Pyrola elliptica</i>)	U
*A Night-flowering Catchfly	(<i>Silene noctiflora</i>)	U
- between Kings Forest & Mt. Albion Road		
* Sweet Cicely	(<i>Osmorhiza claytoni</i>)	C
* Anise-root	(<i>Osmorhiza longistylis</i>)	U
*A Wild Madder	- Kings Forest	
*A Orpine	(<i>Galium mollugo</i>)	C
* Wild Basil	(<i>Sedum telephium</i>)	C
*A Yellow Goat's-beard	(<i>Satureja vulgaris</i>)	C
* Pointed-leaved Tick-Trefoil	(<i>Tragopogon pratensis</i>)	C
* Comfrey	(<i>Desmodium glutinosum</i>)	U
*A Hound's-tongue	(<i>Symphytum officinale</i>)	C
* Yellow Avens	(<i>Cynoglossum officinale</i>)	C
* Common Speedwell	(<i>Geum aleppicum</i> var. <i>strictum</i>)	C
* Lopseed	(<i>Veronica officinalis</i>)	C
* Michigan Lily	(<i>Phryma leptostachya</i>)	C
* Carrion-flower	(<i>Lilium michiganense</i>)	U
* Hairy Bush-clover	(<i>Smilax herbacea</i>)	C
* Wandlike Bush-clover	(<i>Lespedeza hirta</i>)	U
	(<i>Lespedeza intermedia</i>)	U

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BIRDS

Besides the breeding species listed below, over 100 additional species occur in the Redhill Creek Valley as spring and fall migrants and winter residents.

Some of the species listed below were not observed on a plot but are known to breed in the Redhill Creek Valley.

One species, Long-eared Owl, is rare, being only one of five breeding locations in the region. It nests in Plot A5 but was not found when the plot was censused.

The numbers in the chart refer to breeding pairs found on the plot. Circled numbers refer to birds which breed in the valley but not on the plot where they were observed.

"A" PLOTS

"B" PLOTS

	1	2	3	4	5	6	7	8	9	10		1	2	3	4	5	6	7	8	9	10
Mallard																①					
Red-tailed Hawk																					
American Kestrel																					
Ring-necked Pheasant	1			1												1		1	1	1	
Green Heron																					
Killdeer																1		1	1		
Spotted Sandpiper		1			1											1		1		1	
American Woodcock																					
Rock Dove																					
Mourning Dove																					
Yellow-billed Cuckoo									1									1			
Black-billed Cuckoo																					
Screech Owl																					
Great-horned Owl																					
Long-eared Owl																					
Common Nighthawk																					
Chimney Swift																⑤	③	①		①	
Ruby-throated Hummingbird																					
Belted Kingfisher																					
Yellow-shafted Flicker	1	1	1	1												1	1	1	2	1	1
Hairy Woodpecker																1					
Downy Woodpecker									1	1						1					1
Eastern Kingbird									1	1	1					1		1		1	1
Great-crested Flycatcher									1	1	1					1			1		1
Eastern Phoebe										1											
Willow Flycatcher											1										1
Eastern Wood Pewee	1	1	1	1	1	1	1	1	1	1	1										
Barn Swallow											5										
Rough-winged Swallow									4		4										1
Bank Swallow																					
Purple Martin										1								1	1	1	
Blue Jay									1	1			1	1	1	1	1	1	1	1	1
Common Crow	1									1	1						1				
Black-capped Chickadee													1				2				
White-breasted Nuthatch																					
House Wren											1								1	1	1
Northern Mockingbird																			1	1	1
Gray Catbird	1	2	1		2			1	1	1	1					2	2	2	1	2	3
Brown Thrasher												1									1
American Robin									1		1					1		2	2	2	1
Wood Thrush									1				2								

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AREA NO. 25

BIRDS (Con.)

"A" PLOTS

^{11B} PLOTS

	1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10
Cedar Waxwing					1		1									1		1	1		1
Starling					2			1	1							2		1	1	1	2
Red-eyed Vireo					2	3	2	1		1	1	2			1			1		1	1
Warbling Vireo																			1	2	1
Yellow Warbler								1		2										1	
Ovenbird																				1	
Yellowthroat																					1
American Redstart							1		1												
House Sparrow																					(1)
Bobolink																					
Eastern Meadowlark																1					
Red-winged Blackbird					1	1		2	1		3				1	1		2	3	3	3
Common Grackle					4+	1		6+1			1				3			2+3+1+1			2
Brown-headed Cowbird																			1		
Northern Oriole					2	2	1			1		1			1	2	1	1	1	3	1
Scarlet Tanager										1											
Cardinal					2	1	1		1		1				1		1	1	1	2	1
Rose-breasted Grosbeak															1						
Indigo Bunting					1	1	4	1	2	1	2	1	2	1	1	1	1	2	1	1	1
American Goldfinch										2	1					1	1	1	1	2	2
Rufous-sided Towhee					1				1												
Savannah Sparrow																					
Chipping Sparrow																				1	
Field Sparrow																			1		1
Song Sparrow					1	1		1		2					3	1		1	2	2	2

TOTALS:

"A" Plots: 36

¹⁴B Plots: 38

All Plots: 47

MAMMALS

Obviously, the following list is incomplete owing to the secretive nature and nocturnal habits of most mammals. Undoubtedly Striped Skunk occurs and could be added.

One species, the Prairie Deer Mouse (Peromyscus maniculatus bairdii) is known from only one other locality in Hamilton - Wentworth Region: Mt. Albion which is also in Sensitive Area #25 (Redhill Creek).

The Shrew observed may have been the Smokey Shrew (Sorex fumeus fumeus) which is rare and has been found at Buttermilk Falls (A9) in the past.

HA PLOTS

B PLOTS

REPTILES AND AMPHIBIANS

Again, the following list is probably incomplete owing to retiring habits of Reptiles and Amphibians. Other species known from the Redhill Creek Valley are: Pickerel Frog (rare), Northern Water Snake (rare), Northern Ribbon Snake (rare) and Garter Snake (common).

Red-backed Salamander
Northern Leopard Frog
American Toad
Brown Snake

"A" PLOTS											"B" PLOTS									
1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10
				x		x														
						x														
							x											x	x	
																		x		

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